REMARKS

This Amendment under 37 C.F.R. §1.116 is filed in response to the Interview of Nov. 4, 2006 and the Final Office Action mailed Sept. 26, 2006. The Applicant respectfully requests reconsideration of the current rejections. All objections and rejections are respectfully traversed

Claims 1-23 and 32-49 are now pending in the case.

No claims have been amended.

Claims 48-49 have been added. The Applicant respectfully urges that entry of these new claims after Final Rejection is appropriate as their addition was suggested by the Examiner to advance the prosecution of the case.

Claims 8-9, 14, and 15 were indicated to be allowable if rewritten in independent form.

Interview Summary

In the Interview of Nov. 4, 2006 the Applicant highlighted the differences between the Tang reference and Applicant's claims. The Examiner state he would consider the Applicant's arguments and respond in the next Office Action. The Applicant and Examiner further discussed claims 35-37 and in relation to allowed claim 8. The Examiner encouraged the Applicant to add certain new claims in light of the discussion.

Claim Rejections - 35 U.S.C. §102

At paragraph 3 of the Final Office Action, claims 1-6, 10-13, 16-23 and 32-47 were cited under 35 U.S.C. §102(e) as anticipated over Tang et al., U S. Patent No. 6,690,647 (hereinafter Tang).

The Applicant's claim 33, representative in part of the other rejected claims, sets forth:

> 33. A method for assigning appropriate queues in an intermediate network device to traffic flows that pass through the intermediate network device, the method comprising the steps of:
>
> ***receiving a reservation request message specifying one or more flow parameters that describe a given traffic flow***;
>
> ***comparing the one or more flow parameters to one or more constants stored in a memory of the intermediate network device***; and
>
> ***in response to the step of comparing, determining a type of traffic for the given traffic flow*** independent of any marking values in packets of the given traffic flow that identify traffic type;
>
> directing the given traffic flow to a queue adapted for the determined type of traffic.

Tang discloses a technique for computing parameters, including token bucket rate (r) and token bucket size (b), which describe a traffic flow. *See* col. 3, lines 18-22; col. 4, lines 20-23; col. 6, lines 33-35. Importantly, at col. 5, lines 51-55, Tang makes clear that packet length (p_i), arrival time (t_i) and queue size (q) are "Input parameters" and that token bucket rate (r) and token bucket size (b) are "**Output parameters**" *see* col. 5, lines 51-59 (emphasis added). The specific algorithms used to computer r and b operates by first establishing a range of acceptable values between r_{min} to r_{max} and b_{min} to b_{max} (see col. 4, lines 30-55 and claim 3), which satisfy a no-delay requirement (see col. 4, line 66 to col. 5, line 4). An optimal value of the two parameters, termed r_{opt} and b_{opt}, is then selected from within the range. *See* col. 5, lines 36-43 and claim 3. The parameters are placed in packets and reported to the rest of the network. *See* col. 6, lines 53-56.

The Applicant respectfully urges that Tang is silent concerning the Applicant's claimed "***receiving a reservation request message specifying one or more flow parameters that describe a given traffic flow***" and "***comparing the one or more flow parameters to one or more constants stored in a memory of the intermediate network device***" and

"***in response to the step of comparing, determining a type of traffic for the given traffic flow***."

While the Applicant takes received ***flow parameters***, such as token bucket rate (r), token bucket size (b), and peak data rate (p) (specifically claimed in dependent claims such as claims 7, 32, 35-37, and 42-44) and compares them with certain constants to determine ***a type of traffic for the given traffic flow***, Tang deals with the different problem of how to calculate flow parameters in the first place. Given certain traffic, Tang describes how to calculate flow parameters *r* and *b*. Tang then places these flow parameters in packets for transmission. *See Tang* col. 6, lines 53-56.

The Applicant, in contrast, simply receives flow parameter in packets. The Applicant uses the flow parameters, to go the other way and determine what type of traffic is in the traffic flow associated with the flow parameters. For example, the Applicant may determine from the flow parameters that the type of traffic is real time voice traffic (specifically claimed in claims 4, 16 34, 41) that should be treated in a special manner. Tang provides no description of how to use flow parameters in this novel manner.

Accordingly, the Applicant respectfully urges that Tang is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed novel "***receiving a reservation request message specifying one or more flow parameters that describe a given traffic flow***" and "***comparing the one or more flow parameters to one or more constants stored in a memory of the intermediate network device***" and "***in response to the step of comparing, determining a type of traffic for the given traffic flow***."

At paragraphs 2 of the Final Office Action, claims 1-6, 10-13, 16-23 and were cited under 35 U.S.C. §102(e) as anticipated by Yin, U.S. Patent No. 5,926,458 (hereinafter Yin).[1]

The Applicant's claim 1, representative in part of the other rejected claims, sets forth:

> 1. An intermediate network device for use in a computer network having a plurality of entities configured to issue requests to reserve network resources for use by traffic flows, the reservation requests specifying one or more flow parameters, the intermediate network device comprising:
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> a traffic scheduler having one or more network resources for use in forwarding network traffic received at the device at different rates;
>
> a classification engine configured to identify network messages belonging to respective traffic flows based upon predefined criteria;
>
> a resource reservation engine in communicating relationship with the traffic scheduler and the classification engine, the resource reservation engine including ***a flow analyzer that is configured to apply one or more sets of predefined heuristics*** that are accessible by the flow analyzer ***to the one or more flow parameters specified in the reservation requests to determine a type of traffic of the given traffic flow, the one or more sets of heuristics to determine the type of traffic independent of any marking values in packets of the given traffic flow that identify traffic type***, and the flow analyzer further configured to ***select a queue and/or a queue servicing algorithm for assignment to the traffic flow*** corresponding to the reservation request.

Yin focuses on a method for servicing (i.e. dequeuing) IP data packets from queues within a router, to meet differing quality of service (QOS) requirements. *See* col. 1, lines 61-66. To set the stage for the main description, Yin briefly describes that incoming data packets are allocated (enqueued) into appropriate queues based upon information in their packet headers. *See* col. 4, lines 33-37 and Fig 3, 60, 62, and 64. Yin

[1] There is some inconstancy in the Final Office Action as to exactly what claims are rejected over Yin. The Applicant assumes that the first 2 lines of paragraph 2 are correct which list claims 1-6, 10-13, 16-23. Should this be incorrect, the Applicant respectfully requests clarification.

then discloses, in the rest of the description, a procedure for servicing (**d**equeuing from) the queues at particular queue service times appropriate for the QOS requirements of the packets in the queues. *See* Fig. 3, 66, 68, 70 and Figs. 4-6. Each queue is serviced (dequeued from) in response to a queue service time value associated with the queue, which itself is calculated from a queue service interval based *I(i)* and a packet length *P(i)*. *See* col. 6, lines 32-40 and 62-67. The queue service interval is inversely related to the allocated bandwidth for the queue, such that higher bandwidth queues are serviced more frequently. *See* col. 6, lines 18-31.

The Applicant respectfully urges that Yin is silent concerning the Applicant's claimed "***a flow analyzer that is configured to apply one or more sets of predefined heuristics … to the one or more flow parameters specified in the reservation requests to determine a type of traffic of the given traffic flow, the one or more sets of heuristics to determine the type of traffic independent of any marking values in packets of the given traffic flow that identify traffic type***" to "***select a queue and/or a queue servicing algorithm for assignment to the traffic flow.***"

While the Applicant claims applying heuristics to flow parameters to ***select a queue and/or a queue servicing algorithm for assignment to the traffic flow***, the majority of Yin provides little disclosure on how to select an algorithm or queue, instead dealing with the details of how a dequeuing algorithm itself functions (i e , once selected). Indeed col. 5, line 15 to col. 6, lines 67 of Yin, which is repeatedly cited to by the Examiner, deals exclusively with the internal function of dequeuing algorithms. Such description in Yin presuppose that data packets are already in the appropriate queue or associated with the appropriate dequeuing algorithm, and thus provide little illumination on how to ***select a queue and/or a queue servicing algorithm*** in the first place.

The brief portion of Yin that does discuss selecting appropriate queues/algorithms simply provides conclusory statements and few details on how this is actually done. Yin simply states that a buffer controller "allocates the received data packets to the appropriate queue 46-52 based on information contained in the header of the data packet." *See*

col. 4, lines 33-37. Such brief description in no way teaches every element of the Applicant's claims. The Applicant claims a flow analyzer that uses ***one or more sets of predefined heuristics*** with ***flow parameters specified in the reservation requests to determine a type of traffic of the given traffic flow…independent of any marking values in packets of the given traffic flow that identify traffic type.*** Yin does not even mention using flow parameters in any manner in relation to selecting a queue and/or a queue servicing algorithm, much less all the claim elements.

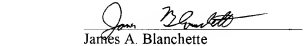
Accordingly, the Applicant respectfully urges that Yin is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed novel "***a flow analyzer that is configured to apply one or more sets of predefined heuristics … to the one or more flow parameters specified in the reservation requests to determine a type of traffic of the given traffic flow, the one or more sets of heuristics to determine the type of traffic independent of any marking values in packets of the given traffic flow that identify traffic type***" to "***select a queue and/or a queue servicing algorithm for assignment to the traffic flow.***"

Should the Examiner believe a follow-up telephonic interview would be helpful in the disposition of this Application, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



James A. Blanchette
Reg. No. 51,477
CESARI AND MCKENNA, LLP
8 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500